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10/611,521	06/30/2003	Patrice R. Calhoun	062891.2719	4437

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EXAMINER	
CHAN, SAI MING	

ART UNIT	PAPER NUMBER
2416	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/611,521	CALHOUN, PATRICE R.	
	Examiner	Art Unit	
	SAI-MING CHAN	2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *9/26/2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Jones et al. (U.S. Patent #7298702),** in view of **Jouppi et al. (U.S. Patent Publication #20040109455).**

Consider **claims 1 and 12**. Jones et al. clearly disclose and show a wireless network system, comprising

a plurality of access elements (column 1, lines 36-39 (access points)) for wireless communication (abstract (WLAN)) with one remote client element (fig. 1(12), column 5, lines 46-50) and for communication with a central control element (fig. 1(22), column 5, lines 46-59 (VAP server));

a central control element for supervising (fig. 2 (34 & 36), column 10, lines 32-54) said access elements, where the central control element is operative to manage, and control (fig. 2 (34 & 36), column 10, lines 32-54 (route , drop or route local)) the wireless connections between the access elements (column 1, lines 36-39 (access points)) and corresponding remote client elements (fig. 1(12), column 5, lines 46-50),

wherein the central control element is further operative to

detect a session initiation message (fig. 2 (34 & 36), column 10, lines 32-54 (look at SIP message)) associated with a remote client element, the session initiation message corresponding to a session between the remote client element and an end

system (fig. 2 (34 & 36), column 10, lines 32-54 (SIP message from wireless terminal to call control device)) ,

maintain wireless connections with one or more remote client elements (col. 1, lines 40-47 (wireless connection));

However, Jones et al. do not disclose processing the session initiation message to determine one or more Quality-of-service (QoS) parameters and specifically associating the one or more QoS parameters to the session corresponding to the session initiation message.

In the same field of endeavor, Jouppi et al. clearly show:

process the session initiation message (paragraph 0004 (IMS uses SIP)) to determine one or more Quality-of- Service (QoS) parameters (paragraph 0004 (IMS include functions for QoS negotiation)), wherein one of the one or more QoS parameters is an allocation of wireless bandwidth resources (paragraph 0004 (IMS include QsS (for bandwidth and etc.)));

associate the one or more QoS parameters (paragraph 0004 (QoS resources)) to the application layer session (paragraph 0038 (application-plane session)) corresponding to the session initiation message (paragraph 0004 (using SIP protocol), and

forward the session initiation message to a session initiation protocol server for processing of the session initiation message (paragraph 0004 (negotiate QoS)); paragraph 0007);

transmit the one or more QoS parameters to a first access element to which

the first remote client element is associated (paragraph 0007 (transmit identifiers to another system)), and

wherein the first access element is operative to

reserve wireless bandwidth of the first access element (paragraph 0004 (negotiate QoS (bandwidth)) for the application layer session (paragraph 0038 (application-plane session)) according to the allocation of wireless bandwidth of the QoS parameter (paragraph 0004 (negotiate QoS)) transmitted (paragraph 0007).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to demonstrate a network system, as taught by Jones, and show processing the session initiation message to determine one or more Quality-of-service (QoS) parameters and specifically associating the one or more QoS parameters to the session corresponding to the session initiation message, as taught by Jouppi, in order to provide an optimal communication path.

Consider **claim 2,** and **as applied to claim 1 above,** Jones et al. clearly disclose and show a computer network (column 6, lines 18-25 (software logic)) wherein the central control element (fig. 2 (34 processor), column 6, lines 18-25) is coupled to the computer network, and wherein the central control element is operative to

establish a tunnel with each access element for transmission of wireless traffic associated with corresponding remote client elements (column 2, lines 44-63 (tunnel from VAP to VPN terminator)), and

bridge network traffic between the computer network and a remote client element through a tunnel (column 2, lines 44-63 (tunnel from VAP to VPN terminator)) with a corresponding access element.

Consider **claim 3,** and **as applied to claim 2 above,** Jones et al. clearly disclose and show a system wherein the access elements are each connected to the central control element via a direct access line (fig. 2 (42), column 7, lines 37-45).

Consider **claim 4,** and **as applied to claim 2 above,** Jones et al. clearly disclose and show a system wherein the access elements are each operably coupled to the computer network (column 1, lines 36-39 (access points), fig. 2, column 7, lines 37-45).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Jones et al. (U.S. Patent #7298702),** in view of **Jouppi et al. (U.S. Patent Publication #20040109455),** and in view of **Amin et al. (U.S. Patent Publication # 20020152319).**

Consider **claim 5,** and **as applied to claim 1 above,** Jones et al., clearly disclose and show a system wherein the central control element transmit from the first access element to a second access element (paragraph 0099 (add the policy)) and QoS

parameters defining the allocation of wireless bandwidth of the remote client (paragraph 0004 (IMS include QsS (for bandwidth and etc.))).

However, Jones et al. do not specifically disclose handoff.

Furthermore, Amin et al. clearly disclose handoff (paragraph 0037 (during handoff, little interruption is involved)).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate a network system, as taught by Jones, show QoS parameters defining the allocation of wireless bandwidth of the remote client, as taught by Williams, and demonstrate handoff, as taught by Amin et al., in order to provide a perfect communication path.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Jones et al. (U.S. Patent #7298702),** in view of **Jouppi et al. (U.S. Patent Publication #20040109455),** and in view of **Hagen** (**U.S. Patent Publication #20020075844).**

Consider **claim 6,** and **as applied to claim 1 above,** Jones et al. clearly disclose and show a system as described.

However, Jones et al., do not specifically disclose QoS parameters defining the allocation of wireless bandwidth, and the central control element is further operative to revoke previously granted QoS guarantees provided to at least one lower priority

session, if enforcement of the QoS policy with all previously configured QoS parameters exceed a limit.

In addition, Hagen clearly disclose QoS parameters defining the allocation of wireless bandwidth (paragraph 0050 (determine bandwidth parameters)), and the central control element (paragraph 0050 (NAS)) is further operative to revoke previously granted QoS guarantees provided to at least one lower priority session (paragraph 0103 (reallocate bandwidth between network and users as appropriate or desire)), if enforcement of the QoS policy with all previously configured QoS parameters exceed a limit (paragraph 0103 (utilization of bandwidth exceeds threshold)).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to demonstrate a network system, as taught by Jones et al., show QoS parameters defining the allocation of wireless bandwidth, as taught by Williams, and show Qos exceeds limit, as taught by Hagen, in order to provide an optimal communication path.

Claims 13, 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Jones et al. (U.S. Patent #7298702),** in view of **Jouppi et al. (U.S. Patent Publication #20040109455),** and in view of **Williams et al.** (**U.S. Patent Publication # 20030074452).**

Consider **claim 13**, and **as applied to claim 12 above**, Jones et al. clearly disclose the network system as described.

However, Jones et al. do not specifically disclose bandwidth in the application layer.

In the same field of endeavor, Jouppi et al. clearly show bandwidth (paragraph 0004 (IMS include QsS (for bandwidth and etc.))) in the application layer (paragraph 0038 (application-plane session)).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to show a network system, as taught by Jones, and show bandwidth reserved for the application layer, as taught by Jouppi, so that SIP messages are corresponded to the application layer.

However, Jones et al., as modified by Jouppi, do not specifically disclose monitor the SIP response and deallocate the bandwidth.

In the same field of endeavor, Williams et al. clearly disclose:

monitor for a response to the session initiation message forwarded to the session initiation protocol server (paragraph 0052 (Policy Control Function has to authorize the requested QoS));

deallocating the wireless bandwidth reserved for the session (paragraph 0049 (MS can reject the profile)), if the response rejects the session (paragraph 0049 (system is overloaded)).

Therefore it would have been obvious to a person of ordinary skill in the art at the

time the invention was made to show a network system, as taught by Jones, show bandwidth reserved for the application layer, as taught by Jouppi, and display monitoring the SIP response and deallocating the wireless bandwidth reserved for the session, if the response rejects the session, as taught by Williams, in order to provide a perfect communication path.

Consider **claim14**, and **as applied to claim 12 above**,

claim 16, and **as applied to claim 1 above**,

Jones et al., clearly disclose the network system as described.

However, Jones et al. do not specifically disclose bandwidth in the application layer.

In the same field of endeavor, Jouppi et al. clearly show bandwidth (paragraph 0004 (IMS include QsS (for bandwidth and etc.))) in the application layer (paragraph 0038 (application-plane session)).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to show a network system, as taught by Jones, and show bandwidth reserved for the application layer, as taught by Jouppi, so that SIP messages are corresponded to the application layer.

However, Jones et al., as modified by Jouppi, do not specifically disclose:

storing, responsive to detection of the session initiation message, the session initiation message forwarded to the session initiation protocol server;

monitoring for a response accepting the session corresponding to the session initiation message forwarded to the session initiation protocol server;

and wherein the enforcing the QoS parameter is conditioned on the response accepting the session initiation message.

In the same field of endeavor, Williams et al. clearly disclose:

storing, responsive to detection of the session initiation message (paragraph 0051, lines 16-22 (SIP message), the session initiation message (paragraph 0049 (store context in database)) forwarded to the session initiation protocol server (paragraph 0051, lines 16-22 (send msg to Call State Control Function for QoS authorization));

monitoring for a response accepting the session (paragraph 0052 (Policy Control Function has to authorize the requested QoS)) corresponding to the session initiation message forwarded to the session initiation protocol server (paragraph 0051, lines 16-22 (send msg to Call State Control Function for QoS authorization));

and wherein the enforcing the QoS parameter (paragraph 0052 (mobile terminal generates media binding information after the authorization)) is conditioned on the response accepting the session initiation message (paragraph 0052 (Policy Control Function authorizes the request QoS)).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to show a network system, as taught by Jones, and show bandwidth reserved for the application layer, as taught by Jouppi, and display storing the SIP, monitoring the SIP response and enforcing the QoS parameter is conditioned

on the response accepting the session initiation message, as taught by Williams, in order to provide a perfect communication path.

Consider **claim 15**, and **as applied to claim 1 above**, Jones et al. clearly disclose the network system as described.

However, Jones et al. do not specifically disclose bandwidth reserved for the application layer.

In the same field of endeavor, Jouppi et al. clearly show bandwidth (paragraph 0004 (IMS include QsS (for bandwidth and etc.))) reserved for the application layer (paragraph 0038 (application-plane session)).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to show a network system, as taught by Jones, and show bandwidth reserved for the application layer, as taught by Jouppi, so that SIP messages are corresponded to the application layer.

However, Jones et al. do not specifically disclose:

the central control element is operative to:

monitor for a response to the session initiation message forwarded to the session initiation protocol server;

transmit, if the response rejects the session corresponding to the session initiation message, control signals to cause the first access element to discard the QoS parameters transmitted by the central control element in response to the session

initiation message.

In the same field of endeavor, Williams et al. clearly disclose:

monitor for a response to the session initiation message forwarded to the session initiation protocol server (paragraph 0052 (Policy Control Function has to authorize the requested QoS));

transmit, if the response rejects the session corresponding to the session initiation message (paragraph 0049 (system is overloaded)), control signals to cause the first access element to discard the QoS parameters transmitted by the central control element in response to the session initiation message (paragraph 0049 (MS can reject the profile)).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to show a network system, as taught by Jones, and display monitoring the SIP response and discarding the QoS parameters transmitted by the central control element, as taught by Williams, in order to provide a perfect communication path.

Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Jones et al. (U.S. Patent #7298702),** in view of **Jouppi et al. (U.S. Patent Publication #20040109455),** and **Hagen** (**U.S. Patent Publication #20020075844),** and in view of **Amin et al. (U.S. Patent Publication # 20020152319).**

Consider **claim 7,** and **as applied to claim 6 above,** Jones et al., clearly disclose and show a system as described.

However, Jones et al., do not specifically disclose maximum bandwidth limit.

In addition, Amin et al. clearly disclose the limit is the maximum bandwidth associated with the access element (paragraph 0045 (default bandwidth during session establishment)).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate a network system, as taught by Jones, and demonstrate maximum bandwidth limit, as taught by Amin et al., in order to provide a perfect communication path.

Consider **claim 8,** and **as applied to claim 6 above,** Jones et al., clearly disclose and show a system as described.

However, Jones et al., do not specifically disclose bandwidth limit is configurable.

In addition, Amin et al. clearly disclose bandwidth limit is configurable (paragraph 0043 (facilitate a change of bandwidth)).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate a network system, as taught by Jones, and demonstrate configurable bandwidth limit, as taught by Amin et al., in order to provide a perfect communication path.

Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Jones et al. (U.S. Patent #7298702),** in view of **Jouppi et al. (U.S. Patent Publication #20040109455),** and **Hagen** (**U.S. Patent Publication #20020075844),** and further in view of **McLampy et al. (U.S. Patent Publication # 20020114282).**

Consider **claim 9,** and **as applied to claim 6,** Jones et al., clearly disclose and show a system as described.

However, Jones et al., do not specifically disclose maximum number of sessions.

In the same field of endeavor, McLampy et al. clearly shows a maximum number of sessions (paragraph 0032, lines 23-26 (maximum sessions)).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to demonstrate a network system, as taught by Jones et al., and show authentication, as taught by McLampy, in order to provide an optimal communication path.

Consider **claim 10,** and **as applied to claim 1 above,** Jones et al., clearly disclose and show a system as described.

However, Jones et al., do not specifically disclose authentication mechanism.

In the same field of endeavor, McLampy et al. clearly shows a system further comprising a session initiation protocol (SIP) server (fig. 2 (246 SIP proxy server)) including an application layer authentication mechanism (paragraph 0073 (password and userid));

and wherein the central control element is operative to

maintain security states (fig. 3a (334 access right)) for remote client elements detected by the access elements,,

apply, at the access elements, a security mechanism to (fig. 3a (334 access right), paragraph 0073 (table 1)) control access to the wireless connections to remote client elements, wherein operation of the security mechanism is based on the security states of the remote client elements, and

adjust the security state (fig. 3a (334 access right), paragraph 0073 (table 1)) associated with a remote client element based on its interaction with the authentication mechanism associated with the SIP server.

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate a network system, as taught by Jones, and demonstrate the authentication, as taught by McLampy et al., in order to provide an optimal communication path.

Consider **claim 11,** and **as applied to claim 10 above,** Jones et al., clearly disclose and show a system wherein the central control element is operative to deny connections (column 1, lines 36-50 (needs to be authenticated before communication)) with an access element to a wireless client element that fails to properly authenticate (column 1, lines 36-50 (needs to be authenticated before communication)) with the authentication mechanism of the SIP server.

Response to Amednment

Applicant's arguments filed on11/26/208, with respect to claims 1 and 12, on pages 7-12 of the remarks have been fully considered. In the present application, Applicants basically argue that Jones et al. do not teach or suggest "bandwidth reserved for the application layer".

The Examiner has introduced a new reference which teaches or suggests "bandwidth reserved for the application layer". See the above rejections of claims 1 and 6, for the relevant interpretation and citations found in Hagen, disclosing the missing limitations.

Conclusion

Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed to**:

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Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Sai-Ming Chan whose telephone number is (571) 270-1769. The Examiner can normally be reached on Monday-Thursday from 8:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 571-272-4100.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

/Sai-Ming Chan/

Examiner, Art Unit 2416

February 27, 2009

/Kevin C. Harper/
Primary Examiner, Art Unit 2416